IN THE CLAIMS

Please cancel claim 97 without prejudice or disclaimer to the subject matter expressed therein.

Please amend claims 21, 23, 27, 29, 31, 33-40, 98, and 100-106, as indicated in the "mark-up" copy found in Appendix 1 of this Response and Amendment. A "clean" copy of the amended claims, in compliance with 37 C.F.R. §1.121, is found in Appendix 2 of this Response and Amendment.

REMARKS

Following the amendments made herein, claims 21, 23, 24, 27-40, and 98-106 are pending in the present application. The claims have amended to remove dependency to cancelled claim 97 and to describe the inventive subject matter more clearly. The amendments do not add any new matter under 35 U.S.C. §132. Basis for the amendments is found in claims 1-10 as originally filed, and elsewhere throughout the specification and claims. Accordingly, entry of the amendments is respectfully requested.

Applicants acknowledge with appreciation the Examiner's indication of allowable subject matter found in claims 21, 23, 24, 27-40, and 98-106. Applicants have amended the dependency of these claims in accord with the Examiner's suggestions, placing claims 21, 23, 24, 27-40, and 98-106 in condition for allowance.

1. Objection to Specification

The Office Action objects to page 113 (Table E) of the Specification as illegible in part. Table E appears on pages 113-114 of the Specifiation as filed. In order to advance prosecution, Applicants provide replacement pages 113 and 114 (Table E) as an attachment to this Response and Amendment.

Accordingly, Applicants respectfully request the Examiner to reconsider and withdraw this objection.

2. Rejection of Claims 21, 23, 24, 27-40, and 97-106 under 35 U.S.C. §112, first paragraph

The Official Action rejects claims 21, 23, 24, 27-40, and 97-106 under 35 U.S.C. §112, first paragraph, because the specification does not reasonably provide enablement for all possible single N-containing six-membered heterocyclic compounds. The Office Action acknowledges that the application is enabled for the specific heterocyclic compounds of the invention such as those found in claim 102, and that claims 21, 23, 24, 27-40, and 98-106 are allowable if amended to overcome the rejection under 35 U.S.C. §112, first paragraph.

Applicants note that the present application does not claim "all possible single N-containing six-membered heterocyclic compounds." However, in order to further prosecution, and without prejudice to pursuing canceled subject matter in a continuing application, claim 97 has been canceled and claims 21, 23, 27, 29,

31, 33-40, 98, and 100-106 have been amended to remove the dependency to claim 97.

Accordingly, Applicants respectfully request the Examiner to reconsider and withdraw this rejection.

CONCLUSION

Based upon the above remarks, the presently claimed subject matter is believed to be novel, enabled, and patentably distinguishable over the prior art of record. Thus, the Examiner is respectfully requested to reconsider and withdraw the outstanding rejections and allow all pending claims 21, 23, 24, 27-40, and 98-106 presented herein for reconsideration. Favorable action with an early allowance of the pending claims is earnestly solicited.

The Examiner is welcomed to telephone the undersigned attorney if she has any questions or comments.

Respectfully submitted,

NATH & ASSOCIATES PLLC

Date: June 12, 2001

Gary M. Nath
Reg. No. 26,965
Todd L. Juneau
Reg. No. 40,669
Customer No. 20529

NATH & ASSOCIATES PLLC
1030 15th Street, N.W.
6th Floor
Washington, D.C. 20005
Tel: (202) 775-8383
Fax: (202) 775-8396
GMN:TLJ:lch ROA2.wpd

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Appendix 1

Amendments to pending claims: mark-up copy (37 C.F.R. §1.121(c)(ii)).

Please cancel claim 97 without prejudice or disclaimer to the subject matter expressed therein.

Please amend claims 21, 23, 27, 29, 31, 33-40, 98, and 100-106, as follows:

21. (Once amended) The method of claim 102 [97], which is for improving naturally-occurring vision in an animal, in the absence of any ophthalmologic disorder, disease, or injury.

23. (Once amended) The method of claim 102 [97], wherein the compound is administered to said animal in combination with an effective amount of one or more factor(s) useful in treating vision disorders, improving vision, treating memory impairment, or enhancing memory performance in an animal.

27. (Once amended) The method of claim 102 [97], wherein the nerve-related vision disorder is retinal ischemia.

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29. (Once amended) The method of claim 102 [97], wherein the nerve-related vision disorder is optic nerve transection.

31. (Once amended) The method of claim 102 [97], wherein the nerve-related vision disorder is diabetes.

33. (Once amended) The method of claim 102 [97], wherein the nerve-related vision disorder is macular degeneration.

34. (Once amended) The method of claim 102 [97], wherein the nerve-related vision disorder is glaucoma related degeneration.

35. (Once amended) The method of claim 102 [97], wherein the nerve-related vision disorder is cataract related degeneration.

36. (Once amended) The method of claim 102 [97], wherein the nerve-related vision disorder is a detached retina.

37. (Once amended) The method of claim 102 [97], wherein the nerve-related vision disorder is inflammation related degeneration.

38. (Once amended) The method of claim 102 [97], wherein the nerve-related vision disorder is photoreceptor degeneration.

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39. (Once amended) The method of claim 102 [97], wherein the nerve-related vision disorder is optic neuritis.

40. (Once amended) The method of claim 102 [97], wherein the nerve-related vision disorder is dry eye degeneration.

98. (Once amended) The method of claim 102 [97], wherein the compound has an affinity for an FKBP-type immunophilin.

100. (Once amended) The method of claim 102 [97], wherein the compound is immunosuppressive.

101. (Once amended) The method of claim 102 [97], wherein the compound is non-immunosuppressive.

102. (Once amended) A method for treating a nerve-related vision disorder, improving vision, treating memory impairment, or enhancing memory performance in an animal, which comprises administering to said animal an effective amount of a [The method of claim 97, wherein the] compound [is] selected from the group consisting of:

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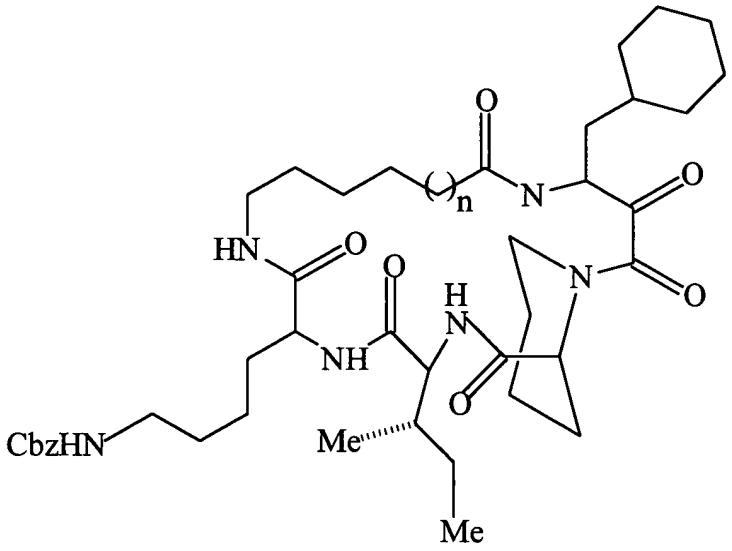

wherein n is 1; 2; or 3;

4-(4-methoxyphenyl)butyl (2S)-1-[2-(3,4,5-trimethoxyphenyl)acetyl]hexahydro-2-pyridinecarboxylate;

4-(4-methoxyphenyl)butyl (2S)-1-[2-(3,4,5-trimethoxyphenyl)acryloyl]hexahydro-2-pyridinecarboxylate;

4-(4-methoxyphenyl)butyl (2S)-1-[2-(3,4,5-trimethoxyphenyl)propanoyl]hexahydro-2-pyridinecarboxylate;

4-(4-methoxyphenyl)butyl (2S)-1-[2-oxo-2-(3,4,5-trimethoxyphenyl)acetyl]hexahydro-2-pyridinecarboxylate;

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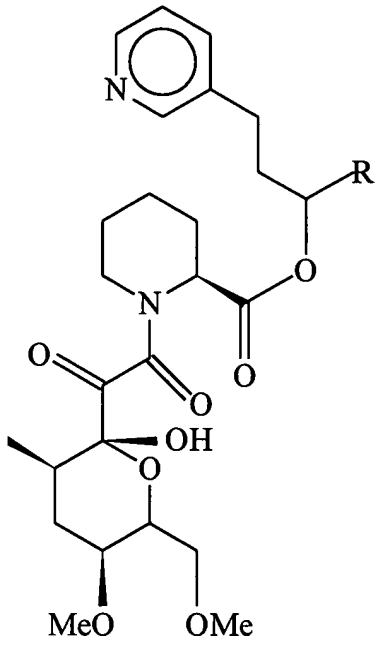

;

3-cyclohexylpropyl (2S)-1-(3,3-dimethyl-2-oxopentanoyl)hexahydro-2-pyridinecarboxylate;

3-phenylpropyl (2S)-1-(3,3-dimethyl-2-oxopentanoyl)hexahydro-2-pyridinecarboxylate;

3-(3,4,5-trimethoxyphenyl)propyl (2S)-1-(3,3-dimethyl-2-oxopentanoyl)hexahydro-2-pyridinecarboxylate;

(1R)-2,2-dimethyl-1-phenethyl-3-butenyl (2S)-1-(3,3-dimethyl-2-oxopentanoyl)hexahydro-2-pyridinecarboxylate;

(1R)-1,3-diphenylpropyl (2S)-1-(3,3-dimethyl-2-oxopentanoyl)hexahydro-2-pyridinecarboxylate;

(1R)-1-cyclohexyl-3-phenylpropyl (2S)-1-(3,3-dimethyl-2-oxopentanoyl)hexahydro-2-pyridinecarboxylate;

(1S)-1,3-diphenylpropyl (2S)-1-(3,3-dimethyl-2-oxopentanoyl)hexahydro-2-pyridinecarboxylate;

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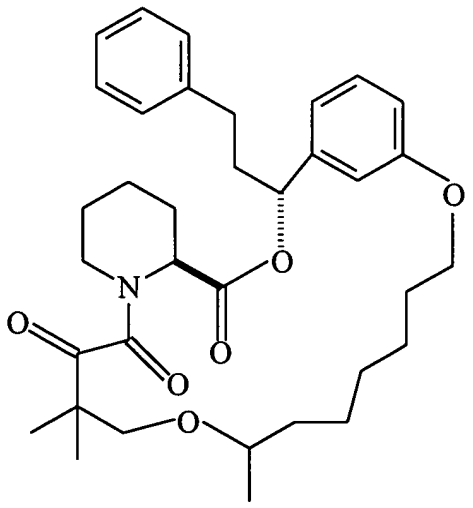
(1S)-1-cyclohexyl-3-phenylpropyl (2S)-1-(3,3-dimethyl-2-oxopentanoyl)hexahydro-2-pyridinecarboxylate;

(22aS)-15,15-dimethylperhydropyrido[2,1-c][1,9,4]dioxazacyclononadecine-1,12,16,17-tetraone;

(24aS)-17,17-dimethylperhydropyrido[2,1-c][1,9,4]dioxazacyclohenicosine-1,14,18,19-tetraone;



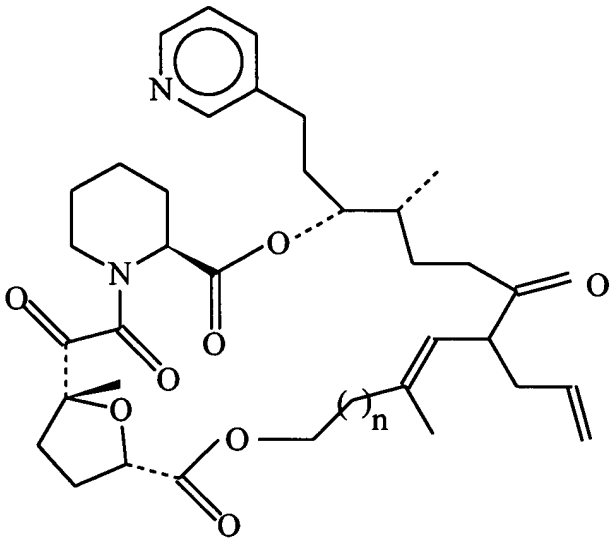
;

(3R,4R,23aS)-8-allyl-4,10-dimethyl-3-[2-(3-pyridyl)ethyl]-1,3,4,5,6,7,8,11,12,15,16,17,18,20,21,22,23,23a-octadecahydro-14H-pyrido[2,1-c][1,10,4]dioxazacycloicosine-1,7,14,17,18-pentaone;

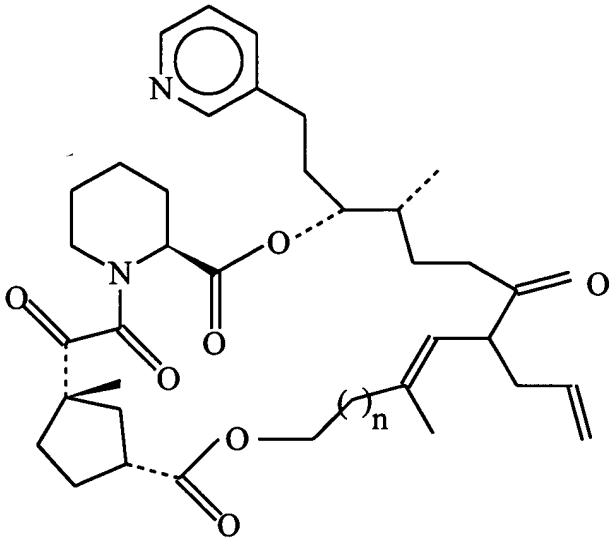
(3R,4R,24aS)-8-allyl-4,10-dimethyl-3-[2-(3-pyridyl)ethyl]-1,3,4,5,6,7,8,11,12,14,15,16,17,18,19,21,22,23, 24,24a-icosahydropyrido[2,1-c] [1,11,4]dioxazacyclohenicosine-1,7,14,18,19-pentaone;

(3R,4R,25aS)-8-allyl-4,10-dimethyl-3-[2-(3-pyridyl)ethyl]-1,3,4,5,6,7,8,11,12,15,16,17,18,19,20,22,23, 24,25,25a-icosahydro-14H-pyrido[2,1-c] [1,12,4]dioxazacyclodocosine-1,7,14,19,20-

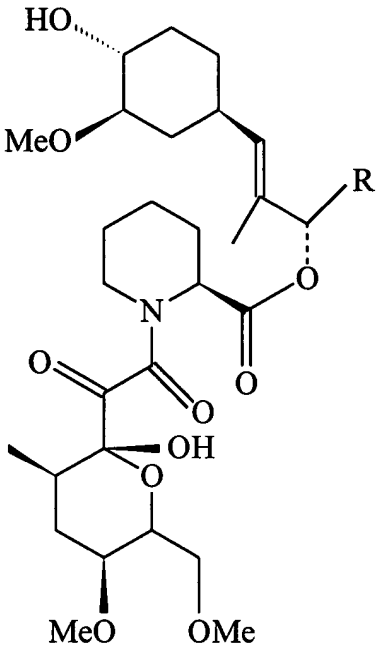
pentaone;



wherein n is 1; 2; or 3;



wherein n is 1; 2; or 3;

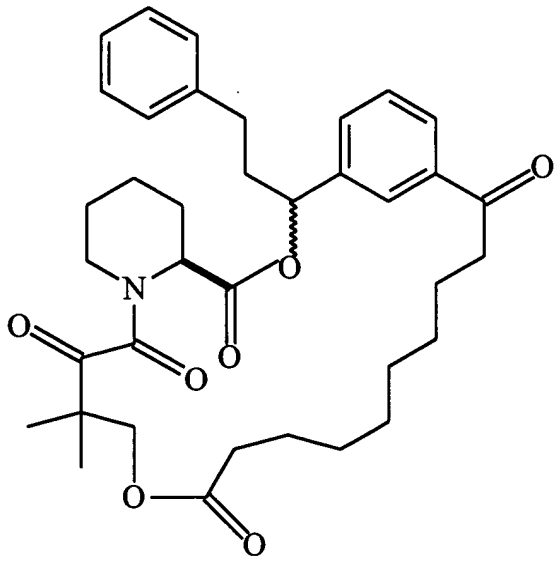


;

(1R)-1-(3-benzoylphenyl)-3-phenylpropyl (1R)-2-(3,3-dimethyl-2-oxopentanoyl)cyclohexane-1-carboxylate;

(1R)-1-[3-(diallylcarbamoyl)phenyl]-3-phenylpropyl;

(1R)-2-(3,3-dimethyl-2-oxopentanoyl)cyclohexane-1-carboxylate;



;

ethyl 1-(2-oxo-3-phenylpropanoyl)-2-piperidinecarboxylate;

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ethyl 1-pyruvoyl-2-piperidinecarboxylate;

ethyl 1-(2-oxobutanoyl)-2-piperidinecarboxylate;

ethyl 1-(3-methyl-2-oxobutanoyl)-2-piperidinecarboxylate;

ethyl 1-(4-methyl-2-oxopentanoyl)-2-piperidinecarboxylate;

ethyl 1-(3,3-dimethyl-2-oxobutanoyl)-2-piperidinecarboxylate;

ethyl 1-(3,3-dimethyl-2-oxopentanoyl)-2-piperidinecarboxylate;

4-[2-(ethyloxycarbonyl)piperidino]-2,2-dimethyl-3,4-dioxobutyl acetate;

ethyl 1-[2-(2-hydroxytetrahydro-2H-2-pyranyl)-2-oxoacetyl]-2-piperidinecarboxylate;

ethyl 1-[2-(2-methoxytetrahydro-2H-2-pyranyl)-2-oxoacetyl]-2-piperidinecarboxylate;

ethyl 1-[2-(1-hydroxycyclohexyl)-2-oxoacetyl]-2-piperidinecarboxylate;

ethyl 1-[2-(1-methoxycyclohexyl)-2-oxoacetyl]-2-piperidinecarboxylate;

ethyl 1-(2-cyclohexyl-2-oxoacetyl)-2-piperidinecarboxylate;

ethyl 1-(2-oxo-2-piperidinoacetyl)-2-piperidinecarboxylate;

ethyl 1-[2-(3,4-dihydro-2H-6-pyranyl)-2-oxoacetyl)-2-piperidinecarboxylate;

ethyl 1-(2-oxo-2-phenylacetyl)-2-piperidinecarboxylate;

ethyl 1-(4-methyl-2-oxo-1-thioxopentyl)-2-piperidinecarboxylate;

3-phenylpropyl 1-(2-hydroxy-3,3-dimethylpentanoyl)-2-piperidinecarboxylate;

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(1R)-1-phenyl-3-(3,4,5-trimethoxyphenyl)propyl 1-(3,3-dimethylbutanoyl)-2-piperidinecarboxylate;

(1R)-1,3-diphenylpropyl 1-(benzylsulfonyl)-2-piperidinecarboxylate;

3-(3,4,5-trimethoxyphenyl)propyl 1-(benzylsulfonyl)-2-piperidinecarboxylate;

1-(2-[(2R,3R,6S)-6-[(2S,3E,5E,7E,9S,11R)-2,13-dimethoxy-3,9,11-trimethyl-12-oxo-3,5,7-tridecatrienyl]-2-hydroxy-3-methyltetrahydro-2H-2-pyranyl)-2-oxoacetyl)-2-piperidinecarboxylic acid;

methyl 1-(2-[(2R,3R,6S)-6-[(2S,3E,5E,7E,9S,11R)-2,13-dimethoxy-3,9,11-trimethyl-12-oxo-3,5,7-tridecatrienyl]-2-hydroxy-3-methyltetrahydro-2H-2-pyranyl)-2-oxoacetyl)-2-piperidinecarboxylate;

isopropyl 1-(2-[(2R,3R,6S)-6-[(2S,3E,5E,7E,9S,11R)-2,13-dimethoxy-3,9,11-trimethyl-12-oxo-3,5,7-tridecatrienyl]-2-hydroxy-3-methyltetrahydro-2H-2-pyranyl)-2-oxoacetyl)-2-piperidinecarboxylate;

benzyl 1-(2-[(2R,3R,6S)-6-[(2S,3E,5E,7E,9S,11R)-2,13-dimethoxy-3,9,11-trimethyl-12-oxo-3,5,7-tridecatrienyl]-2-hydroxy-3-methyltetrahydro-2H-2-pyranyl)-2-oxoacetyl)-2-piperidinecarboxylate;

1-phenylethyl 1-(2-[(2R,3R,6S)-6-[(2S,3E,5E,7E,9S,11R)-2,13-dimethoxy-3,9,11-trimethyl-12-oxo-3,5,7-tridecatrienyl]-2-hydroxy-3-methyltetrahydro-2H-2-pyranyl)-2-oxoacetyl)-2-

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piperidinecarboxylate;

(Z)-3-phenyl-2-propenyl 1-(2-[(2R,3R,6S)-6-[(2S,3E,5E,7E,9S,11R)-2,13-dimethoxy-3,9,11-trimethyl-12-oxo-3,5,7-tridecatrienyl]-2-hydroxy-3-methyltetrahydro-2H-2-pyranyl)-2-oxoacetyl)-2-piperidinecarboxylate;

3-(3,4-dimethoxyphenyl)propyl 1-(2-[(2R,3R,6S)-6-[(2S,3E,5E,7E,9S,11R)-2,13-dimethoxy-3,9,11-trimethyl-12-oxo-3,5,7-tridecatrienyl]-2-hydroxy-3-methyltetrahydro-2H-2-pyranyl)-2-oxoacetyl)-2-piperidinecarboxylate;

N2-benzyl-1-(2-[(2R,3R,6S)-6-[(2S,3E,5E,7E,9S,11R)-2,13-dimethoxy-3,9,11-trimethyl-12-oxo-3,5,7-tridecatrienyl]-2-hydroxy-3-methyltetrahydro-2H-2-pyranyl)-2-oxoacetyl)-2-piperidinecarboxylate;

N2-(3-phenylpropyl)-1-(2-[(2R,3R,6S)-6-[(2S,3E,5E,7E,9S,11R)-2,13-dimethoxy-3,9,11-trimethyl-12-oxo-3,5,7-tridecatrienyl]-2-hydroxy-3-methyltetrahydro-2H-2-pyranyl)-2-oxoacetyl)-2-piperidinecarboxylate;

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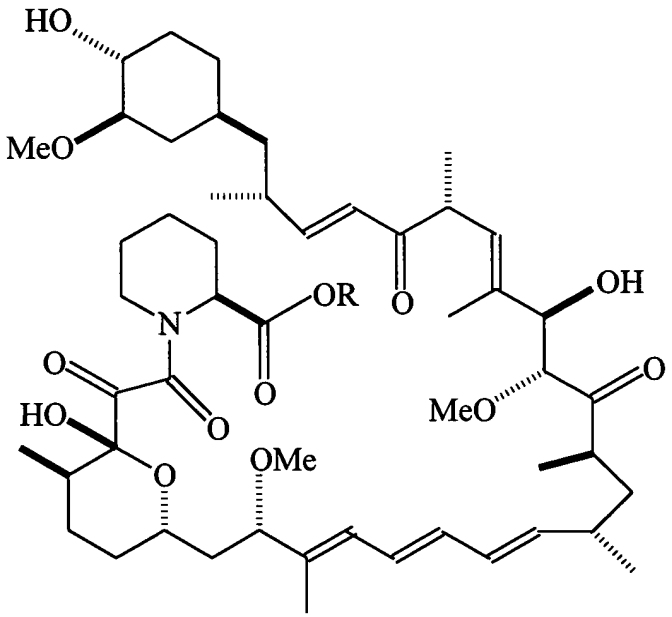
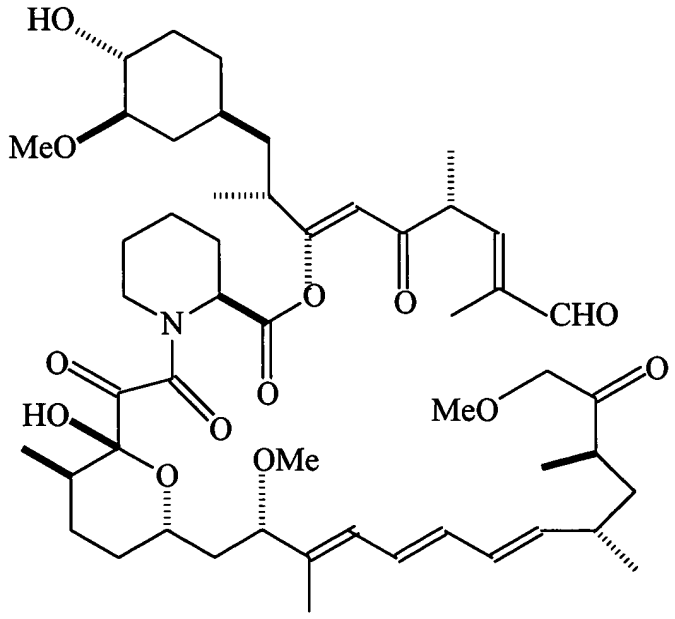


wherein R is methyl (Me); or benzyl (Bn);



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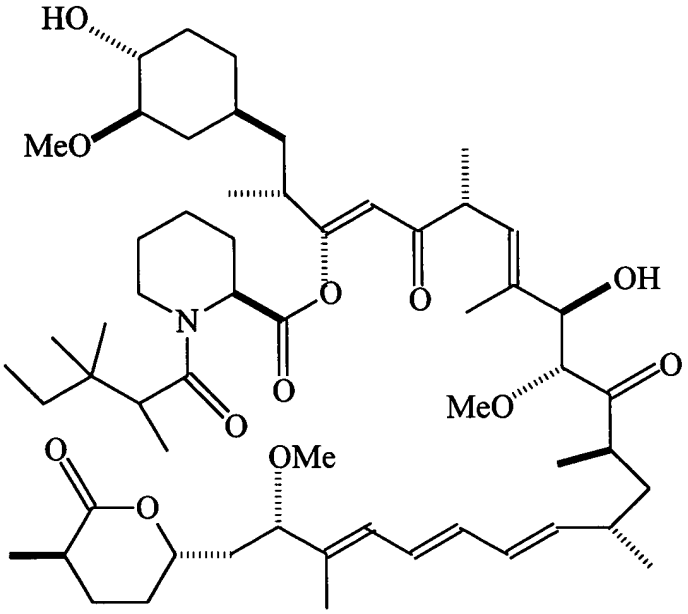

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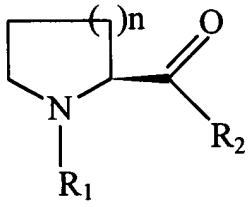
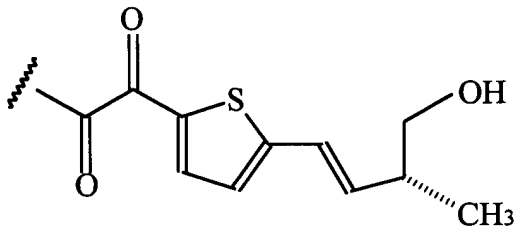
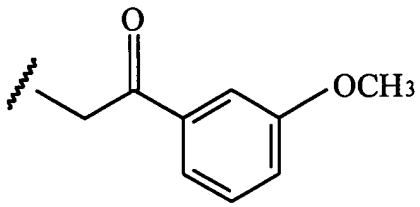


wherein n = 2,

R_1 =

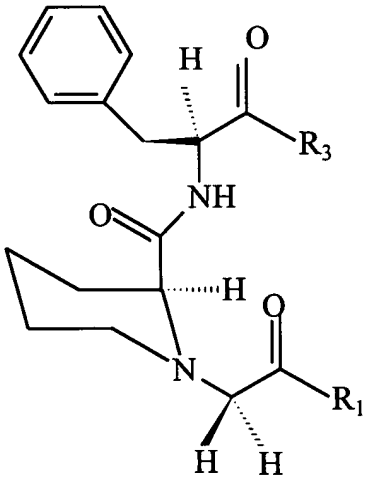


or



and

R_2 = Phe-o-tert-butyl;



wherein

R_1 = m-OCH_3Ph, R_3 = Val-o-tert-butyl;

R_1 = m-OCH_3Ph, R_3 = Leu-o-tert-butyl;

R_1 = m-OCH_3Ph, R_3 = Ileu-o-tert-butyl;

R_1 = m-OCH_3Ph, R_3 = hexahydro-Phe-o-tert-butyl;

R_1 = m-OCH_3Ph, R_3 = allylalanine-o-tert-butyl;

R_1 = B-naphthyl, R_3 = Val-o-tert-butyl;

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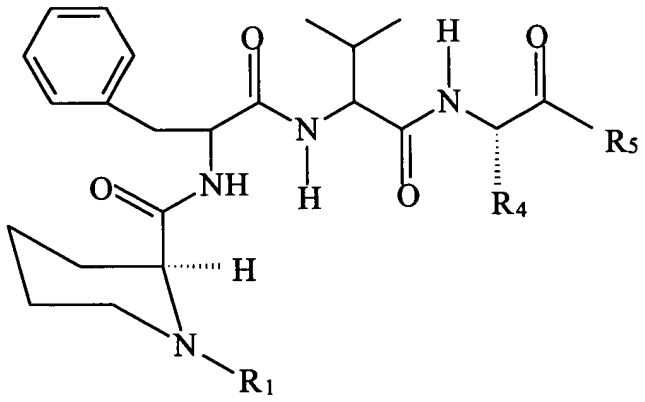


wherein R_1 = $CH_2(CO)$-m-OCH_3Ph

R_4 = CH_2Ph

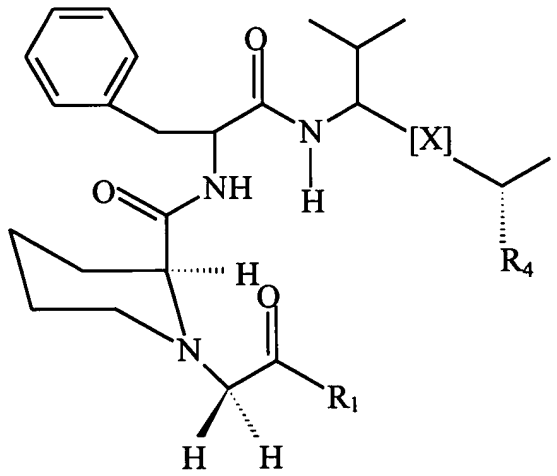
R_5 = OCH_3;

or

R_1 = $CH_2(CO)$-B-naphthyl

R_4 = CH_2Ph

R_5 = OCH_3;



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wherein

R_1 = m-OCH_3Ph

X = trans-CH=CH

R_4 = H

Y = OC(o)Ph;

R_1 = OCH_3Ph

X = trans-CH=CH

R_4 = H

Y = $OC(o)CF_3$;

R_1 = m-OCH_3Ph

X = trans-CH=CHI

R_4 = -

Y = -;

R_1 = m-OCH_3Ph

X = trans-CH=CH

R_4 = H

Y = $OCH_2CH=CH_2$;

R_1 = m-OCH_3Ph

X = C=O

R_4 = H

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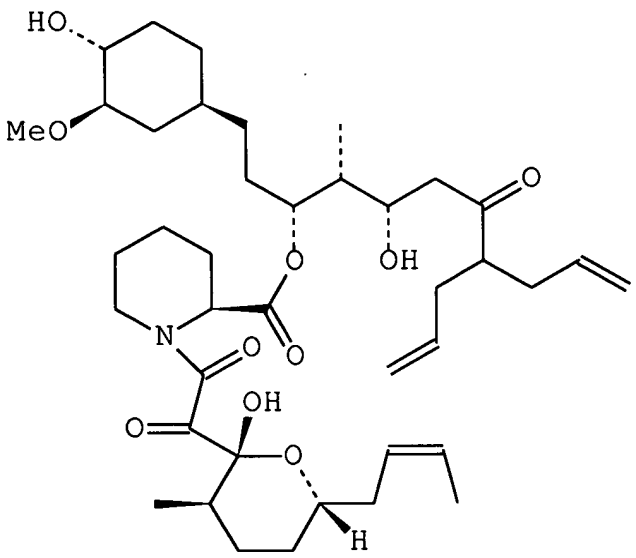
Y = Ph;



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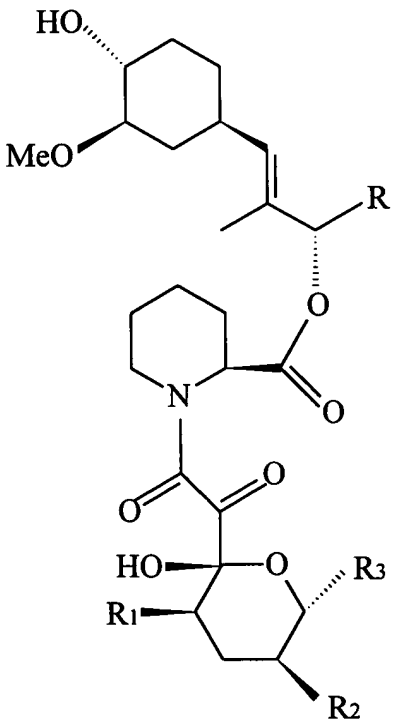

wherein

R_1 = H, R_2 = OMe, and R_3 = CH_2OMe;

R_1 = H, R_2 = H, and R_3 = H;

R_1 = Me, R_2 = H, and R_3 = H;

(E)-3-(3,4-dichlorophenyl)-2-propenyl 1-(3,3-dimethyl-2-oxopentanoyl)-2-piperidinecarboxylate;

(E)-3-(3,4,5-trimethoxyphenyl)-2-propenyl 1-(3,3-dimethyl-2-oxopentanoyl)-2-piperidinecarboxylate;

(E)-3-phenyl-2-propenyl 1-(3,3-dimethyl-2-oxopentanoyl)-2-piperidinecarboxylate;

(E)-3-((3-(2,5-dimethoxy)-phenylpropyl)phenyl)-2-propenyl 1-(3,3-dimethyl-2-oxopentanoyl)-2-piperidinecarboxylate;

4-(4-methoxyphenyl)butyl 1-(2-oxo-2-phenylacetyl)-2-piperidinecarboxylate;

3-phenylpropyl 1-(2-oxo-2-phenylacetyl)-2-piperidinecarboxylate;

3-(3-pyridyl)propyl 1-(2-oxo-2-phenylacetyl)-2-piperidinecarboxylate;

3-(3-pyridyl)propyl 1-(3,3-dimethyl-2-oxopentanoyl)-2-piperidinecarboxylate;

4-phenyl-1-(3-phenylpropyl)butyl 1-(3,3-dimethyl-2-oxopentanoyl)-2-piperidinecarboxylate;

4-(4-methoxyphenyl)butyl 1-(3,3-dimethyl-2-oxopentanoyl)-2-piperidinecarboxylate;

1-(4-methoxyphenethyl)-4-phenylbutyl 1-(3,3-dimethyl-2-

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oxopentanoyl)-2-piperidinecarboxylate;

3-(2,5-dimethoxyphenyl)propyl 1-(3,3-dimethyl-2-oxopentanoyl)-2-piperidinecarboxylate;

3-(1,3-benzodioxol-5-yl)propyl 1-(3,3-dimethyl-2-oxopentanoyl)-2-piperidinecarboxylate;

1-phenethyl-3-phenylpropyl 1-(3,3-dimethyl-2-oxopentanoyl)-2-piperidinecarboxylate;

4-(4-methoxyphenyl)butyl 1-(2-cyclohexyl-2-oxoacetyl)- 2-piperidinecarboxylate;

3-cyclohexylpropyl 1-(2-cyclohexyl-2-oxoacetyl)-2-piperidinecarboxylate;

3-phenylpropyl 1-(2-cyclohexyl-2-oxoacetyl)-2-piperidinecarboxylate;

3-cyclohexylpropyl 1-(3,3-dimethyl-2-oxobutanoyl)-2-piperidinecarboxylate;

3-phenylpropyl 1-(3,3-dimethyl-2-oxobutanoyl)-2-piperidinecarboxylate;

4-(4-methoxyphenyl)butyl 1-(3,3-dimethyl-2-oxobutanoyl)-2-piperidinecarboxylate; [and]

4-phenyl-1-(3-phenylpropyl)butyl 1-(3,3-dimethyl-2-oxobutanoyl)-2-piperidinecarboxylate;

Way-124,666;

rapamycin;

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Rap-Pa; and

SLB-506,

or a pharmaceutically acceptable salt, ester, or solvate thereof,

wherein the nerve-related vision disorder is selected from the group consisting of visual impairments; orbital disorders; disorders of the lacrimal apparatus; disorders of the eyelids; disorders of the conjunctiva; disorders of the cornea; cataract; disorders of the uveal tract; disorders of the retina; disorders of the optic nerve or visual pathways; free radical induced eye disorders and diseases; immunologically-mediated eye disorders and diseases; eye injuries; and symptoms and complications of eye disease, eye disorder, and eye injury.

103. (Once amended) The method of claim 102 [97], wherein the compound is Way-124,666.

104. (Once amended) The method of claim 102 [97], wherein the compound is rapamycin.

105. (Once amended) The method of claim 102 [97], wherein the compound is Rap-Pa.

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106. (Once amended) The method of claim 102 [97], wherein the compound is SLB-506.

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